STANDARD 3: TECHNOLOGY PRODUCTIVITY TOOLS

Students use technology tools to enhance learning, to increase productivity and creativity, and to construct technology-enhanced models, prepare publications and produce other creative works.

READINESS (Kindergarten)

Students know and are able to do the following:

- **3T-R1. Use technology drawing tools for communicating and illustrating**
  See: Language Arts (R-R5, PO1 and W-R3, PO1)

  PO 1. Using a drawing program, create a picture story with support from teacher, family members or student partners
  PO 2. Using a drawing program, add name and letters to illustrations

FOUNDATIONS (Grades 1-3)

Students know and are able to do all of the above and the following:

- **3T-F1. Use prescribed technology writing or drawing tools for communicating and illustrating**
  See: Language Arts (W-F1, PO5), Science (6SC-F7) and Social Studies (1SS-F1)

  PO 1. Use word processing to create a document and, where developmentally appropriate, use editing tools
  PO 2. Insert a graphic into a word processing document

- **3T-F2. Use prescribed technology tools for data collection and basic analysis**
  See: Mathematics 2M-F1 and 2M-F2)

  PO 1. Use a spreadsheet or database application to perform simple data analysis (e.g., comparisons, collections, graphs and charts)

- **3T-F3. Use prescribed technology tools for publishing and presenting information**

  PO 1. Use a pre-designed template or stationery to publish a document (e.g., newsletter, slide show, greeting card, certificate)
  PO 2. Create a multimedia product with support from teachers, family or student partners (e.g., slide show, hyperstack, video)

ESSENTIALS (Grades 4-8)

Students know and are able to do all of the above and the following:

- **3T-E1. Use formatting capabilities of technology tools for communicating and illustrating**
  See: Language Arts (W-F1, PO5)

  PO 1. Use word processing editing tools to revise a document (e.g., cut and paste, tabs and margins, font size, font style, delete and undo, selecting, spell check, click and drag)
  PO 2. Design a word processing document with graphical elements (e.g., clip art, digital photographs, symbols, using text wrap, cropping, sizing, drawing tools)

- **3T-E2. Use a variety of technology tools for data collection and analysis**
  See: Mathematics (5M-E6) and Social Studies (1SS-E8, PO1)

  PO 1. Use technology device(s) to collect and record data (e.g., science probe, graphing calculator, PDA {personal digital assistant}, alternative keyboards, webcams, GPS and Internet)
  PO 2. Create and use a spreadsheet to analyze data (e.g., use formulas, create charts and graphs)
  PO 3. Create a database with multiple fields to manipulate data in a variety of ways (e.g., sort, merge, list and report)

- **3T-E3. Publish and present information using technology tools**
  See: Science (1SC-E3, PO2 grades 4-5, or PO1, grades 6-8)

  PO 1. Design and create a multimedia presentation or Web page using multiple digital sources (e.g., from camera, video, scanner, CD-ROM, Internet)
  PO 2. Publish or present the above production (*See Technology 4T-E2, PO1 or 4T-E3)*

- **3T-E4. Use technology tools to support system analysis and modeling**
  See: Mathematics (2M-E5,6M-E1), Science (1SC-E2, E5) and Workplace Skills (6WP-E1)

  PO 1. Manipulate several variables in a computer simulation to reach a desired outcome (e.g., simulation software, Web-based simulation, textbook support software)

PROFICIENCY (Grades 9-12)

Students know and are able to do all of the above and the following:

- **3T-P1. Communicate to a variety of audiences using professional level technology tools**
  See: Mathematics (2M-P2), Science (5SC-P3-4) and Social Studies (4SS-P2, PO1-2)

  PO 1. Create documents using professional format (e.g., résumé, letter of application, electronic portfolio, research paper)
  PO 2. Merge information from one document to another (e.g., mail merge, publish and subscribe)
  PO 3. Create a document that utilizes hyperlinks (e.g., Web link in documents, linking a word to a glossary, creating an interactive index)

- **3T-P2. Use a variety of technology tools for data collection and analysis to support a decision**
  See: Arts {Theatre}(1AT-P6), Mathematics (2M-P2, 3M-P3) and Social Studies (1SS-P1, PO2)

  PO 1. Select appropriate technology devices to collect and record data (e.g., science probe, graphing calculator, PDA {personal digital assistant}, alternative keyboard, webcam, GPS and Internet)
  PO 2. Create and use a spreadsheet to analyze variables (e.g., 12-month budget, loan rates, science and math experiments, and investment portfolios)
  PO 3. Analyze data and create a database report from information manipulated in a variety of ways to support decisions (e.g., census data, polls and surveys, annual report)

- **3T-P3. Use technology tools to publish and present information with interactive features**
  See: Mathematics (2M-P7, 4M-P2) and Science (5SC-P2 and P6, 6SC-P1)

  PO 1. Design and create a multimedia presentation or Web site with interactive features (e.g., animation, sound, action buttons to play, video, control devices, open other applications, link to a Web site)

- **3T-P4. Use technology tools to support modeling and system analysis**
  See: Science (3SC-P2) and Workplace Skills (6WP-P3)

  PO 1. Manipulate several variables in a computer simulation to reach a desired outcome (e.g., simulation software, Web-based simulation, textbook support software)

DISTINCTION (Honors)

Students know and are able to do all of the above and the following:

- **3T-D1. Demonstrate technical standards, practices and techniques in videography by creating a product**
  See: Arts {Theatre} (1AT-D4-6)